



**Montana Department
of
Fish, Wildlife & Parks**



Region Four P.O. Box 6610, Great Falls, MT. 59406 (406) 454-5840

February 10, 1998

Environmental Quality Council P.O. Box 201704 Helena MT 59620-1704
Dept. Of Environmental Quality P.O. Box 200901 Helena MT 59620-0901
Montana Historical Society SHPO P.O. Box 201202 Helena MT 59620-1202
Montana State Library P.O. Box 201800 Helena MT 59620-1800
Janet Ellis MT Audubon Council P.O. Box 924 Helena MT 59624
Montana Wildlife Federation P.O. Box 1175 Helena MT 59624
Montana State Parks Assn. Paul Hickman, Director P.O. Box 699 Billings MT 59103
George Ochenski P.O. Box 689 Helena MT 59624
Cascade County Commissioners Courthouse Annex Great Falls MT 59401
Cascade County Park Board Courthouse Annex Room 111 Great Falls MT 59401
John Nerud Cascade County Floodplain Administrator 415 Third St NW Great Falls MT 59404
Huey Bloomdahl 29 Golden Eagle Dr. Cascade MT 59421
Ron Fisher 17 Golden Eagle Dr. Cascade MT 59421
Mike McCarter 19 Golden Eagle Dr. Cascade MT 59421
Bob & Winnie Johnson 13 Golden Eagle Dr. Cascade MT 59421
FWP - Director's Office
FWP - Parks Division
 Attention: Jeff Erikson
FWP - Wildlife Division
FWP - Fisheries Division
FWP - Lands Section
FWP - D&C Bureau
FWP - Legal Unit

Ladies and Gentlemen:

This letter announces the availability to comment on the EA for the proposed **Mid-Canon Streambank Stabilization**. The Environmental Assessment is attached for your consideration. Comments will be accepted through 5:00 pm March 13, 1998.

Questions concerning this project should be directed to George Likness, Region Four - FWP, P.O. Box 6610, Great Falls MT 59406 or by calling (406) 454-5840.

Sincerely,

Mike Aderhold
Mike Aderhold
Regional Supervisor

Cascades

MEPA/NEPA/HB495 CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. Type of Proposed State Action

The proposed state action is a cooperative venture to stabilize a high cutbank. This project involves 120 lineal feet of the bank on Cascade County Parkland and will utilize native materials to stabilize the area. The upper 2-6.5 feet of the 4-9.5 feet bank would be sloped back at a 2.5-3:1 slope. Willow bundles would be planted at an angle and covered with a small amount of soil. Sod mats would be stockpiled or replaced as work progresses on the lower portion of the bank. A riparian grass seed mixture would be used on the lower portion of the bank. Bon Terra CF4 erosion control matting, 6.5 feet high, would be installed along the entire length of the project. Two barbs 15-20 feet long would be placed near the top and lower portion of the project to reduce shear stress on the bank; the barbs would increase fish holding areas in the vicinity. Floodplain function will not be impaired by this project.

2. Agency Authority for the Proposed Action

MFWP is cooperating with the landowner, the Cascade County Park Board, to complete this project in conjunction with and as a result of downstream neighbors.

3. Name of Project

Mid Canon Bank Stabilization Project

4. Name, Address and Phone Number of Project Sponsor (if other than the agency)

A. Fish, Wildlife and Parks, Region Four, P.O. Box 6610, Great Falls, MT. 59406.

B. Cascade County Park Board, Courthouse Annex, Room 111, Great Falls MT 59401
Contact: Roy Aafedt

5. If Applicable:

Estimated Commencement Date 4/10/98.

Estimated Completion Date 4/12/98.

Current Status of Project Design (% complete) 90%

6. Location Affected by Proposed Action (county, range and township)

Mid Canon Fishing Access Site, Mid Canon Estates, Cascade County, MT,
SW¼, S20, T16N, R2W

7. Project Size: Estimate the number of acres that would be directly affected that are currently:

- | | |
|-----------------------------------|---------------------------------------|
| (a) Developed: | (d) Floodplain |
| residential . . . <u>0</u> acres | (Stream bank and stream bed) |
| industrial <u>0</u> acres | (e) Productive: |
| | irrigated cropland |
| (b) Open Space / Woodlands | <u>0</u> acres |
| / Recreation . . . <u>0</u> acres | dry cropland <u>0</u> acres |
| | forestry <u>0</u> acres |
| (c) Wetlands/Riparian | rangeland <u>0</u> acres |
| Areas <u>0</u> acres | other <u>0</u> acres |

8. Map/site plan: attach an original 8 1/2" x 11" or larger section of the most recent USGS 7.5' series topographic map showing the location and boundaries of the area that would be affected by the proposed action. A different map scale may be substituted if more appropriate or if required by agency rule. If available, a site plan should also be attached.

9. Narrative Summary of the Proposed Action or Project including the Benefits and Purpose of the Proposed Action.

The proposed project, which encompasses about 120 lineal feet, will utilize native materials to stabilize a high cutbank. The upper 2-6.5 feet of the 4-9.5 feet bank will be sloped back at a 2.5-3:1 slope and contoured to match the slope of downstream neighbors. Willow bundles will be planted at an angle and covered with a small amount of soil. Sod mats will be stockpiled or replaced as work progresses on the lower portion of the bank. A riparian grass seed mixture will be used on the lower portion of the bank. Bon Terra CF4 erosion control matting, 6.5 feet high, will be installed along the entire length of the project. Two small barbs, which would be at a maximum, 15-20 feet long will be placed near the top and lower portion of the project in a side channel of the Missouri River to reduce shear stress on the bank; the barbs will increase fish holding areas in the vicinity. Barbs were chosen as the preferred method because ice damage at this site represents a relatively low risk and the amount of material used will be substantially less than if rip rap was utilized. Barbs will be installed at a 20-30° angle from the bank and at a 7-10% slope (see drawings). Barbs will be designed so they will not hinder navigation. A maximum of 40-50 cubic yards of quarried rock will be placed by an excavator to construct the barbs. Floodplain function will not be impaired by this project. The primary purpose of the project will be to stabilize the streambank by reducing erosion while using the minimum amount of material to accomplish this

goal. An estimated 100 square feet or 0.002 acres would be occupied by the two barbs, all at or below the bankful stage. Excess soil from the sloping of the bank will be graded out between the bank and the road. We estimate that up to a maximum 170 cubic yards of soil will be removed from the bank during sloping and smoothed out on the high terrace above. Sloping and barb rock placement will be done with an excavator on the bank; leveling above will be done with a small dozer. Erosion control measures will be implemented to minimize delivery of sediment into the waterway; disturbed areas will be reseeded and matting will be installed promptly after construction. This project will occur in conjunction with downstream landowners and is proposed as a result of downstream landowners interest in an effort to stabilize a longer length of the vertical cutbank. The private landowners have completed sloping work on their property. Work on the Cascade County Parkland is currently planned for April 1998 if all permits are obtained soon enough; work would be completed over a 2.5-3 day period.

10. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction.

(a) Permits:

<u>Agency Name</u>	<u>Permit</u>	<u>Date Filed</u>	<u>ID#</u>
US Army Corps of Engineers	404	2/11/97 Obtained 3/26/97	Nationwide Permit No. 199790070
Fish, Wildlife & Parks	124/SPA	2/11/97	Misc-2-97
DEQ/ Water Quality Bureau	Short Term Turbidity Exemption	2/10/97 Obtained	MT-14-97
DNRC/ Central Land Office	Land Use License	2/10/97	Unknown

(b) Funding:

<u>Agency Name</u>	<u>Funding Amount</u>
Cascade County Park Board	\$1,175.00
FWP	\$1,700.00
TOTAL	\$2,875.00

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

<u>Agency Name</u>	<u>Type of Responsibility</u>
Cascade County Park Board	Owner

11. List of Agencies Consulted During Preparation of the EA:

Cascade County Park Board
Cascade County Floodplain Administrator
MFWP - Region Four - Parks Division.
MFWP - Region Four - Fisheries Division
FWP - Design and Construction Bureau- Helena.

PART II. ENVIRONMENTAL REVIEW

PHYSICAL ENVIRONMENT

1. LAND RESOURCES Will the proposed action result in:	IMPACT [☆]				Can Impact Be Mitigated [♣]	Comment Index
	Unknown [☆]	None	Minor [☆]	Potentially Significant		
► a. Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility?		X				
► c. Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?				X		A.
. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				
f. Other _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

A. The purpose of the project is to reduce shear stress and erosion on the streambank. This goal will be achieved by reducing erosive action and creating low velocity areas where minor deposition will be encouraged at the toe of the streambank, which will result in increased stability of this portion of the stream. No substantive channel modifications that would affect channel form, channel structure or sediment/bedload transport would be undertaken by the proposed action. No additional impacts are expected if the project is carried out according to current plans.

- ☆ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ♣ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

PHYSICAL ENVIRONMENT

2. <u>AIR</u> Will the proposed action result in:	IMPACT [☆]				Can Impact Be Mitigated [☆]	Comment Index
	Unknown [☆]	None	Minor [☆]	Potentially Significant		
► a. Emission of air pollutants or deterioration of ambient air quality? (also see 13 (c))			X			A.
b. Creation of objectionable odors?		X				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				
e. ♦ For P-R/D-J projects, will the project result in any discharge which will conflict with federal or state air quality regs? (Also see 2a)		X				
f. Other _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Air Resources (Attach additional pages of narrative if needed):

A. During construction a small amount of air pollution could potentially occur. Emissions from equipment operated at the project site and wind erosion from disturbed areas would be possible sources of pollution. After construction, pollution will return to preaction levels. No state or federal standards will be broken as a result of this activity.

PHYSICAL ENVIRONMENT

3. <u>WATER</u> Will the proposed action result in:	IMPACT [☆]				Can Impact Be Mitigated [☆]	Comment Index
	Unknown [☆]	None	Minor [☆]	Potentially Significant		
► a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?			X			A.
b. Changes in drainage patterns or the rate and amount of surface runoff?		X				
c. Alteration of the course or magnitude of flood water or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				

☆ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.

▼ Include a narrative description addressing the items identified in 12.8.604-1a (ARM)

▼ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. ♦♦For P-R/D-J, will the project affect a designated floodplain? (Also see 3c)		X				
m. ♦For P-R/D-J, will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a)			X			B.
n. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Water Resources (Attach additional pages of narrative if needed):

A. The proposed project will result in short term exceedence of Montana surface water quality turbidity standards. Activities that will increase turbidity are of a short duration; turbidity will be increased periodically over a 4-6 hour period during one day while barbs or vanes are installed using an excavator with a thumb. This method was chosen to reduce the amount of disturbance and the degree of turbidity. The short term increase in turbidity is an acceptable negative impact when compared to the resulting reduction in non-point source pollution that will occur if the project is carried out and completed. The project is designed to improve water quality. The State of Montana, Department of Environmental Quality authorized (Authorization No. MT-14-97) a short term exemption from surface water quality turbidity standards which was valid from 3/1/97-5/30/97; we will reapply for this exemption to cover the construction period during 1998.

B. The proposed project will include the discharge of a maximum of 40 cubic yards of quarried rock placed at or below the bankfull stage and requires a review and permitting by the U.S. Army Corps of Engineers and Environmental Protection Agency under the Federal Clean Water Act (404) and the Federal Rivers and Harbors Act. Application has been made for the proposed action to the U.S. Army Corps of Engineers on Eng. Form 4345. The U.S. Army Corps of Engineers determined that the project was authorized by the Department of the Army Nationwide Permit found at 33 CFR Part 330 Appendix A, (B) (13) and referenced Nationwide Permit No. 199790070 in an authorization letter dated 26 March 1997.

- ⊙ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ♦ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

PHYSICAL ENVIRONMENT

4. <u>VEGETATION</u> Will the proposed action result in:	IMPACT [☆]				Can Impact Be Mitigated [☆]	Comment Index
	Unknown [☆]	None	Minor [☆]	Potentially Significant		
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?				X		A.
b. Alteration of a plant community?				X		A.
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?		X				
f. ♦♦For P-R/D-J, will the project affect wetlands, or prime and unique farmland?		X				
g. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

- A. Vegetative management is proposed as part of the proposed action to alter the plant community at the project site to provide revegetation of an exposed dirt bank and enhance the vegetative cover by planting native willow bundles and seeding a native grass mix where existing sods are unavailable. A key part of the project depends on the establishment of desirable, deep rooted grasses and willows; undesirable plant species will be controlled by measures that will not impact the young grasses or willows. The area will be managed in accordance with the Region 4 Weed Management plan.

- ☆ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- ▼ Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ♦♦ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

PHYSICAL ENVIRONMENT

► 5. FISH/WILDLIFE	IMPACT [⊙]				Can Impact Be Mitigated [⊙]	Comment Index
	Unknown [⊙]	None	Minor [⊙]	Potentially Significant		
Will the proposed action result in:						
a. Deterioration of critical fish or wildlife habitat?		X				
b. Changes in the diversity or abundance of game animals or bird species?		X				
c. Changes in the diversity or abundance of nongame species?		X				
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				
h. ♦♦For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f)			X		Yes	A.
i. ♦♦For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d)		X				
j. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

A. Bald Eagles utilize the general area at various times during the year, especially during winter months. Use of the area by bald eagles during the time that the activity is planned is low, resulting in a low probability of any impact on migrating or nesting eagles.

- ⊙ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ♦ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

6. NOISE/ELECTRICAL EFFECTS Will the proposed action result in:	IMPACT [☆]				Can Impact Be Mitigated [☆]	Comment Index
	Unknown [☆]	None	Minor [☆]	Potentially Significant		
a. Increases in existing noise levels?			X			A.
b. Exposure of people to severe or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				
e. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

A. Noise levels will be elevated during some times when work is on-going at the project site. After work is completed, noise levels will return to existing conditions.

☆ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.

Include a narrative description addressing the items identified in 12.8.604-1a (ARM)

♦ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

7. <u>LAND USE</u> Will the proposed action result in:	IMPACT [☆]				Can Impact Be Mitigated [☆]	Comment Index
	Unknown [☆]	None	Minor [☆]	Potentially Significant		
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				
e. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

- ☆ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ◆ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ◆◆ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

8. <u>RISK/HEALTH HAZARDS</u> Will the proposed action result in:	IMPACT [☆]				Can Impact Be Mitigated [☆]	Comment Index
	Unknown [☆]	None	Minor [☆]	Potentially Significant		
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		X				A.
b. Affect an existing emergency response or emergency evacuation plan or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?		X				
d. ♦For P-R/D-J, will any chemical toxicants be used? (Also see 8a)		X				
e. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

- A. Permitting agencies specifically require that defective equipment will not be operated in areas capable of contributing surface flow to the watercourse to prevent spillage and delivery of petroleum products, chemicals, or other deleterious material to the waterway. These conditions will be followed if the proposed action is implemented.

☆ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.

Include a narrative description addressing the items identified in 12.8.604-1a (ARM)

Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

9. <u>COMMUNITY IMPACT</u> Will the proposed action result in:	IMPACT [⚙]				Can Impact Be Mitigated [⚙]	Comment Index
	Unknown [⚙]	None	Minor [⚙]	Potentially Significant		
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				
f. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

- ⚙ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ♦ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

10. PUBLIC SERVICES/TAXES/UTILITIES	IMPACT [⚙]				Can Impact Be Mitigated [⚙]	Comment Index
	Unknown [⚙]	None	Minor [⚙]	Potentially Significant		
Will the proposed action result in:						
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:		X				
b. Will the proposed action have an effect upon the local or state tax base and revenues?		X				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased used of any energy source?		X				
▶ e. Define projected revenue sources						A.
▶ f. Define projected maintenance costs.						B.
g. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

A. Revenue Sources include: Cascade County Park Board, \$1,175.00; FWP, \$1,700.00

C. Maintenance costs: None are currently anticipated

⚙ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.

⚙ Include a narrative description addressing the items identified in 12.8.604-1a (ARM)

♦ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

11. <u>AESTHETICS/RECREATION</u> Will the proposed action result in:	IMPACT [☆]				Can Impact Be Mitigated [♣]	Comment Index
	Unknown [☆]	None	Minor [☆]	Potentially Significant		
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				
b. Alteration of the aesthetic character of a community or neighborhood?			X			A.
►c. Alteration of the quality or quantity of recreational or tourism opportunities and settings? (Attach Tourism Report)		X				
d. ♦For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c)		X				
e. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

A. The aesthetic character of the project site will be enhanced by the proposed action after vegetation establishment has progressed and rehabilitated the riparian/streambank area.

- ☆ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ♦ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

12. CULTURAL/HISTORICAL RESOURCES	IMPACT [⊕]				Can Impact Be Mitigated [⊕]	Comment Index
	Unknown [⊕]	None	Minor [⊕]	Potentially Significant		
Will the proposed action result in:						
▶ a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?		X				
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. ♦♦For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a)		X				
e. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

- ⊕ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ▼ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

13. SUMMARY EVALUATION OF SIGNIFICANCE Will the proposed action, considered as a whole:	IMPACT [☆]				Can Impact Be Mitigated [☆]	Comment Index
	Unknown [☆]	None	Minor [☆]	Potentially Significant		
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)		X				
b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. ♦For P-R/D-J, is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e)		X				
g. ♦♦For P-R/D-J, list any federal or state permits required.			X			A.

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

A. Permits.

U.S. Army Corps of Engineers, 404 Permit

Montana Fish, Wildlife & Parks, 124/SPA Permit

Montana DEQ/Water Quality Bureau Short Term Turbidity Exemption (3A) Permit

Montana DNRC/Central Land Office Land Use License

- ☆ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- ▶ Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ♦ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

1. Description and analysis of reasonable alternatives (including the no action alternative) to the proposed action whenever alternatives are reasonably available and prudent to consider and a discussion of how the alternatives would be implemented:

No Action.

Do not stabilize the streambank on County Park Land. The no action alternative will result in continued erosion of the vertical cutbank, accelerated movement of sediment into the waterway, and accelerated migration of the side channel toward developed property. Downstream landowners have sloped their portion of the bank. The no action alternative would decrease the potential for stability of the bank downstream.

Slope bank but do not protect the bank with barbs or rip-rap.

This alternative would not reduce shear stress on the streambank; the bank would be expected to continue to erode at a relatively rapid rate.

Rip-rap this stretch of the river.

This alternative would adequately protect County Park Land, but would encourage the thalweg (line of maximum depth) to migrate closer to the left streambank and possibly increase erosion on non-riprapped property downstream. Rip-rap should be more expensive than placing barbs.

Project as proposed.

The preferred alternative; this is judged to be the alternative that provides the best cost effective method to stabilize the project site and minimize any impacts.

2. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

Conditions/stipulations are required by each permitting agency. These conditions will be adhered to if the proposed project is implemented. A copy of the DEQ Authorization MT-14-97, Short Form Exemption, and U.S. Army Corp of Engineers 404 permit is attached.

3. Based on the significance criteria evaluated in this EA, is an EIS required? If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

No direct, secondary, or cumulative adverse impacts are significant in terms of context and intensity; consequently, an EIS is not required and the EA was chosen as the appropriate level of analysis. The proposed action provides for minor repairs/maintenance of an unstable streambank and has no impact on existing facilities.

4. Describe the level of public involvement for this project if any and, given the complexity and the seriousness of the environmental issues associated with the proposed action, is the level of public involvement appropriate under the circumstances?

A thirty day public comment period will begin on February 9, 1998. The proposed action has been developed over the last 18 months and discussed at public meetings of the Cascade County Parkboard. All comments will be addressed in the final version of this EA.

5. Duration of comment period if any:
30 days from announcement .

6. Name, title, address and phone number of the Person(s) Responsible for Preparing the EA:

George Liknes
Fisheries Biologist
MFWP Region Four, P.O. Box 6610, Great Falls, MT. 59406 (406)454-5854.

PART III. NARRATIVE EVALUATION AND COMMENT

MFWP is cooperating with the landowner, the Cascade County Park Board, to complete this project in conjunction with and as a result of downstream neighbors. This project will utilize native materials and bio-restoration techniques on 120 lineal feet of the bank on Cascade Count Parkland to stabilize the area. The upper 2-6.5 feet of the 4-9.5 feet bank would be sloped back at a 2.5-3:1 slope. Willow bundles would be planted at an angle and covered with a small amount of soil. Sod mats would be stockpiled or replaced as work progresses on the lower portion of the bank. A riparian grass seed mixture would be used on the lower portion of the bank. Bon Terra CF4 erosion control matting, 6.5 feet high, would be installed along the entire length of the project. Two barbs 15-20 feet long would be placed near the top and lower portion of the project to reduce shear stress on the bank; the barbs would increase fish holding areas in the vicinity. Floodplain function will not be impaired by this project.

PROJECT QUALIFICATION CHECKLIST
HB 495

Date 2-5-98 Person Reviewing George Liknes

Project Location: Mid Canon Fishing Access Site, Mid Canon Estates, Cascade County, MT,
SW¼, S20, T16N, R2W.

DESCRIPTION OF PROPOSED WORK: The proposed project, which encompasses about 120 lineal feet, will utilize native materials to stabilize a high cutbank. The upper 2-6.5 feet of the 4-9.5 feet bank will be sloped back at a 2.5-3:1 slope. Willow bundles will be planted at an angle and covered with a small amount of soil. Sod mats will be stockpiled or replaced as work progresses on the lower portion of the bank. A riparian grass seed mixture will be used on the lower portion of the bank. Bon Terra CF4 erosion control matting, 6.5 feet high, will be installed along the entire length of the project. Two barbs 15-20 feet long will be placed near the top and lower portion of the project to reduce shear stress on the bank; the barbs will increase fish holding areas in the vicinity. Floodplain function will not be impaired by this project.

The following checklist is intended to be a guide for determining whether a proposed development or improvement is of enough significance to fall under HB 495 rules. (Please check ☒ all that apply and comment as necessary.) Capital Construction projects - Prepared by D & C; Force Account Projects - Prepared by Region.

☐ A. New roadway or trail built over undisturbed land?

Comments: No new roadway or trail is part of this project.

☐ B. New building construction (buildings < 100 sf and vault latrines exempt)?

Comments: No new building construction is part of this project.

☒ C. Any excavation of 20 c.y. or greater?

Comments: Sloping of the bank from a near vertical angle to a 2.5-3:1 slope will require moving more than 20 C.Y. of material.

☐ D. New parking lots built over undisturbed land or expansion of existing lot that increases parking capacity by 25% or more?

Comments: No new or old parking lots are a part of this project.

☒ E. Any new shoreline alteration that exceeds a double wide boat ramp or handicapped fishing station?

Comments: The project encompasses alteration of approximately 120 lineal feet of river bank by utilizing native material and vegetative management to stabilize an eroding bank in cooperation with neighboring landowners.

☒ F. Any new construction into lakes, reservoirs, or streams?

Comments: The toe of the bank will be stabilized by placing a relatively small amount of rock in a side channel.

☐ G. Any new construction in an area with National Registry quality cultural artifacts (as determined by State Historical Preservation Office)?

Comments: National Registry quality cultural artifacts are not known to present.

☐ H. Any new above ground utility lines?

Comments: No utilities are associated with this project.

☐ I. Any increase or decrease in campsites of 25% or more of an existing number of campsites?

Comments: No campsite development is included in this project.

☒ J. Proposed project significantly changes the existing features or use pattern; including effects of a series of individual projects.

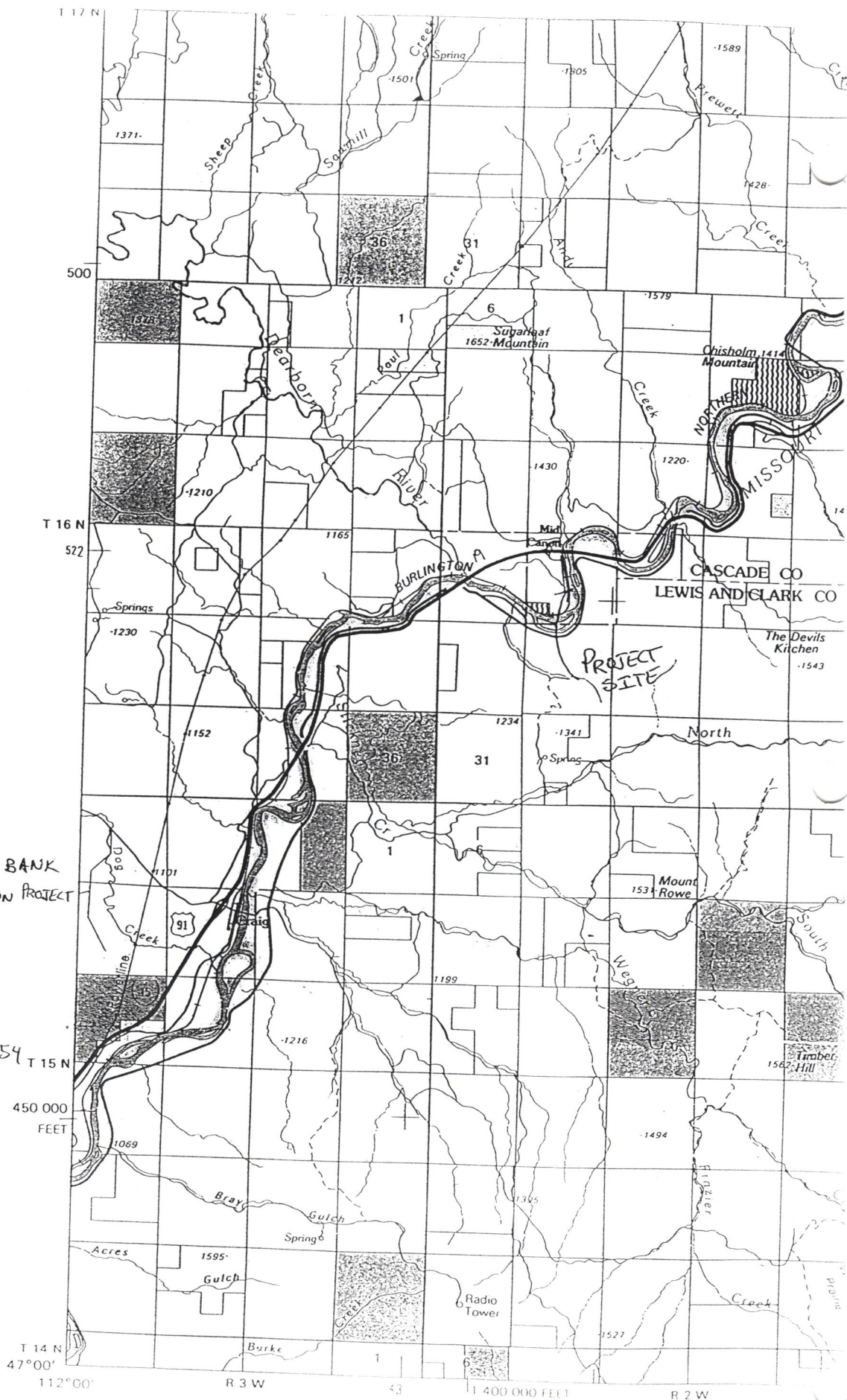
Comments: This project is designed to slow down erosion on a bank on this and neighboring property resulting in a significant increase in bank stability while minimizing costs and impact to the bank.

IF ANY OF THE ABOVE ARE CHECKED, HB 495 RULES APPLY TO THIS PROPOSED WORK AND SHOULD BE DOCUMENTED ON THE MEPA/HP495 CHECKLIST. Refer to MEPA/HB495 Cross Reference Summary for further assistance.

PROJECT NAME: MID CANON BANK
STABILIZATION PROJECT

APPLICANT: CASCADE COUNTY
PARK BOARD

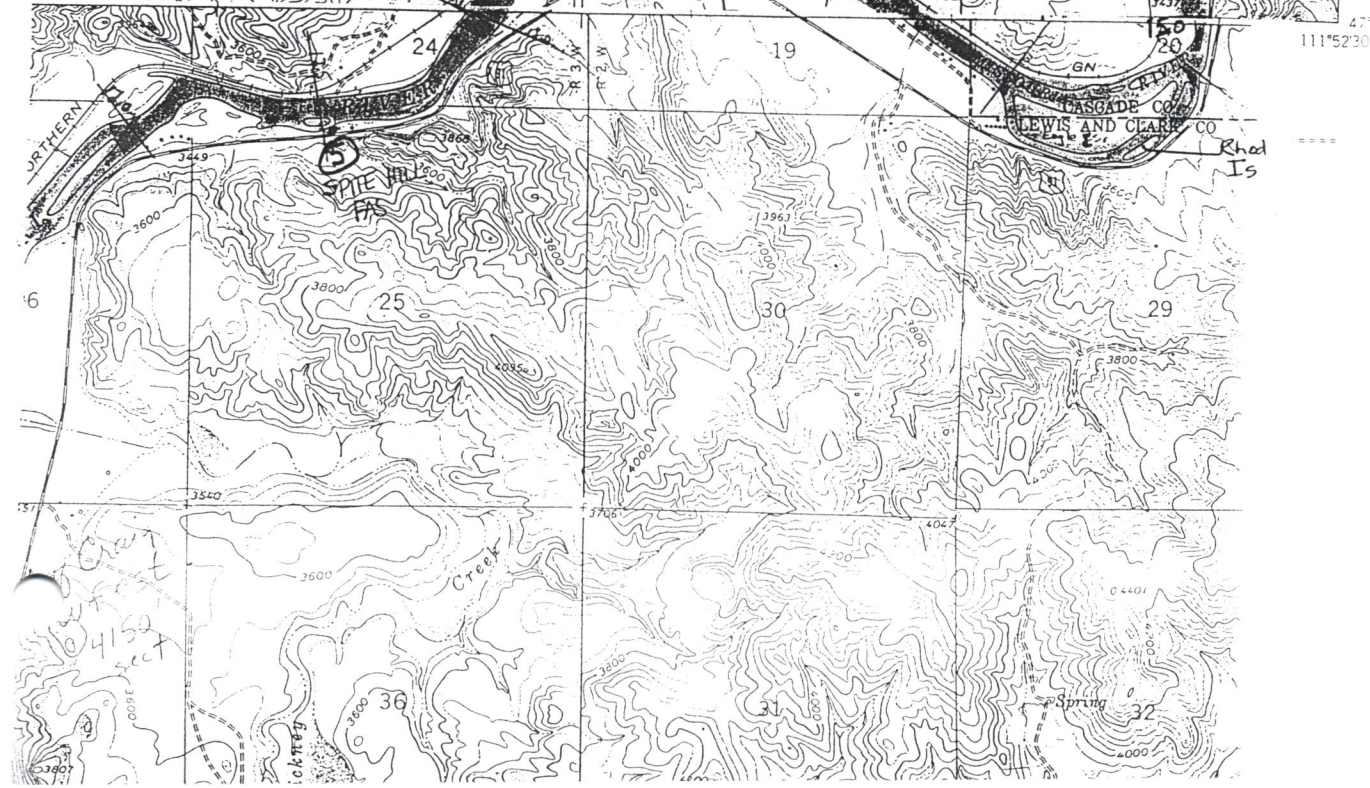
CONTACT: GEORGE LUKES
Phone: (406) 454-5854 T15N



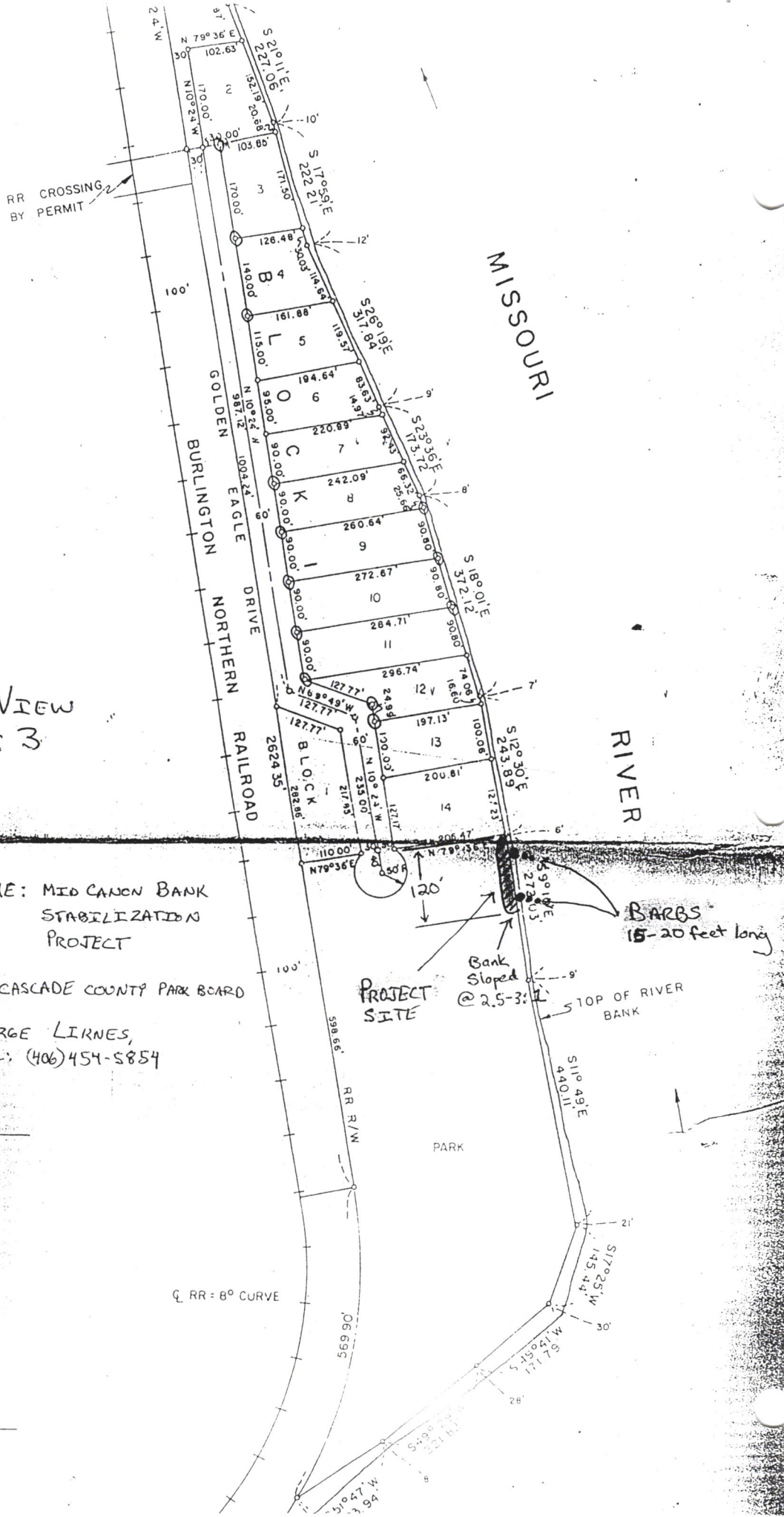
(ELLISTON)

Edited and published by the Bureau of Land Management
Base map prepared by the U.S. Geological Survey

Compiled in 1976 by



[Faint handwritten notes, possibly "The end of the world"]

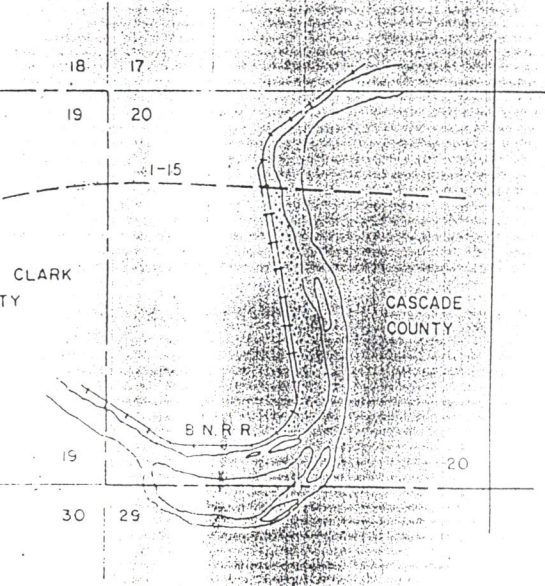


PLAN VIEW
FIGURE 3

PROJECT NAME: MID CANYON BANK
STABILIZATION
PROJECT

APPLICANT: CASCADE COUNTY PARK BOARD

CONTACT: GEORGE LIRNES,
Phone: (406) 454-5854

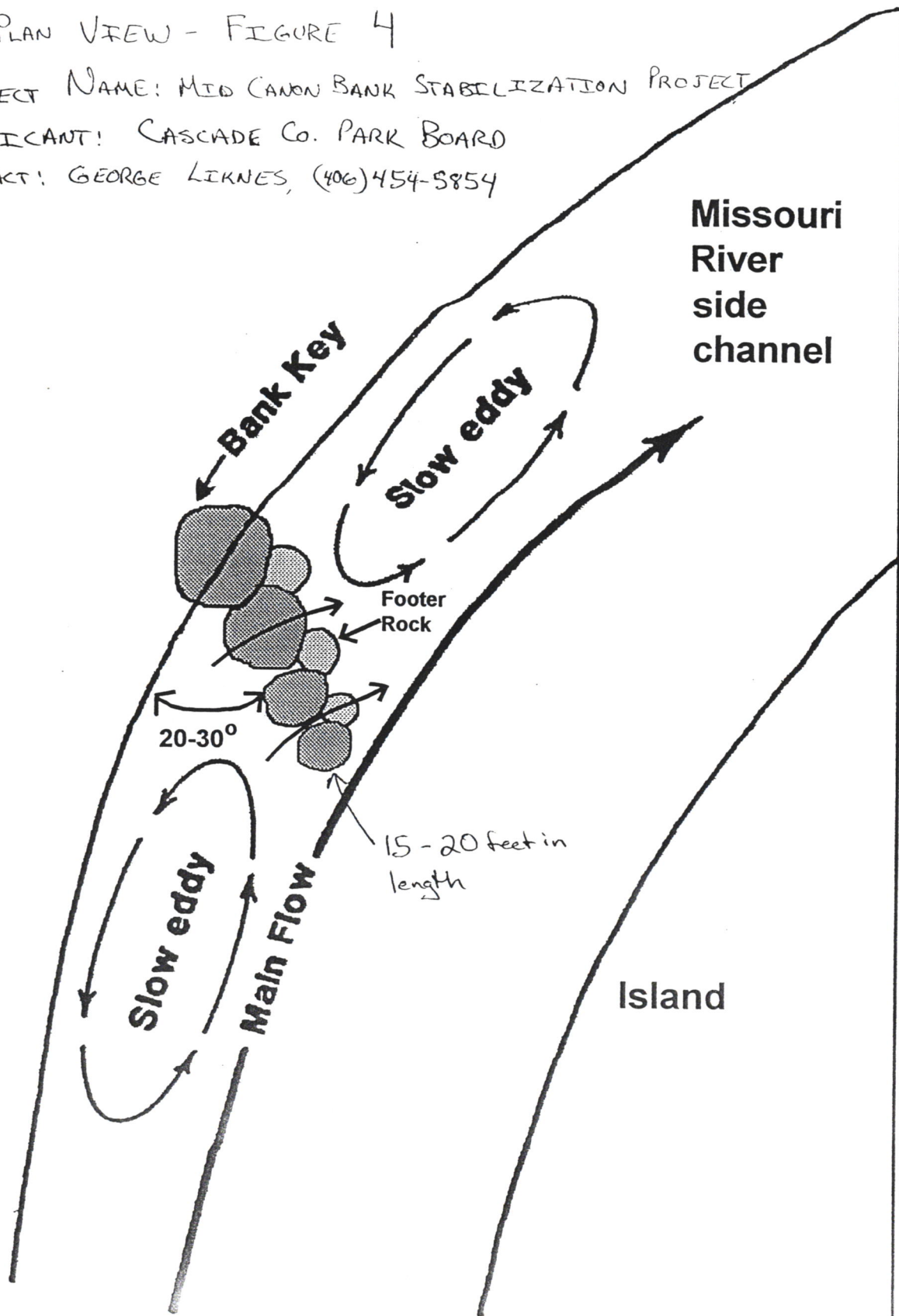


PLAN VIEW - FIGURE 4

PROJECT NAME: MID CANYON BANK STABILIZATION PROJECT

APPLICANT: CASCADE CO. PARK BOARD

CONTACT: GEORGE LIKNES, (406) 454-5854



Typical Barb - Plan View

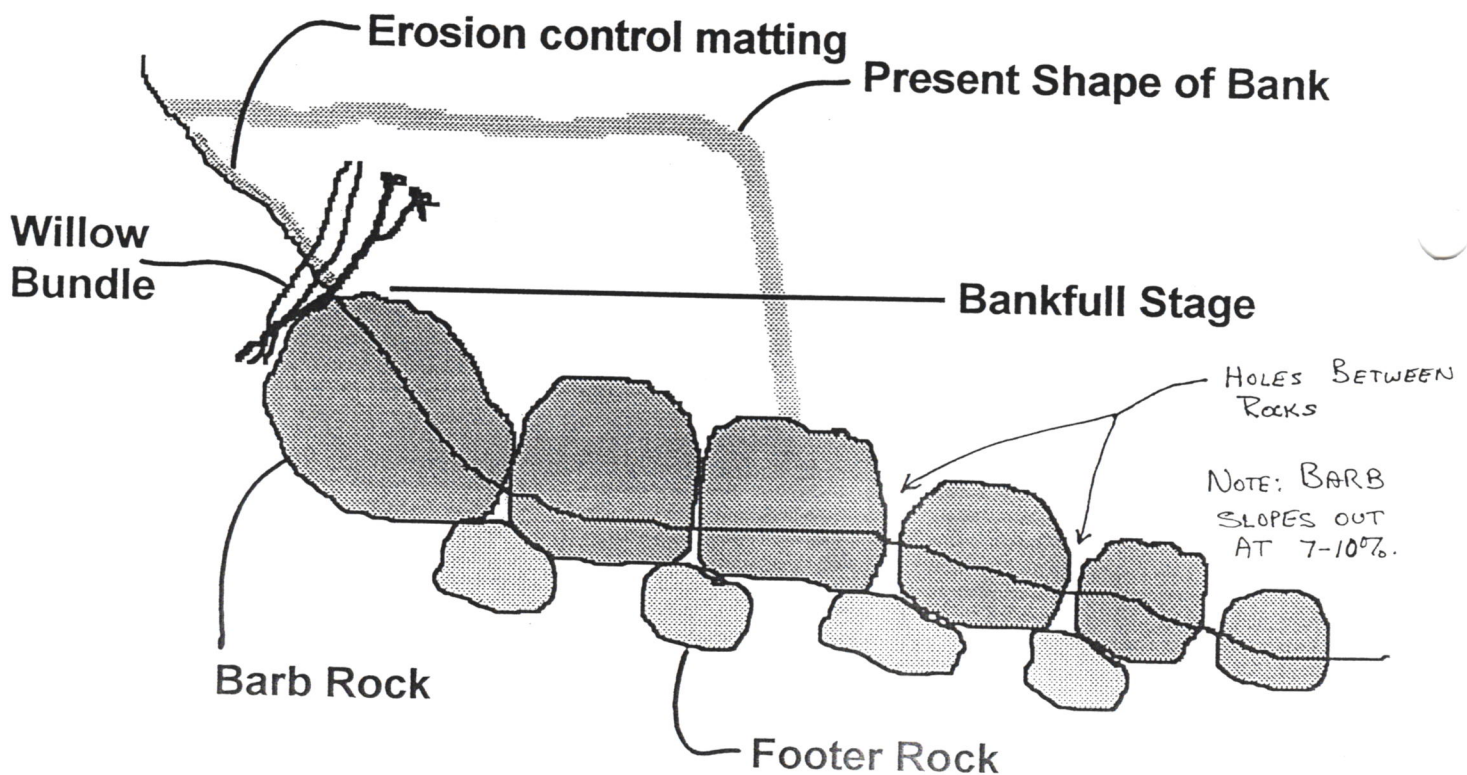
TYPICAL CROSS SECTION - FIGURE 5

PROJECT NAME: MID CANON BANK STABILIZATION PROJECT

APPLICANT: CASCADE COUNTY PARK BOARD

CONTACT: GEORGE LIKNES, (406) 454-5854

Barb - Cross Section





REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
215 NORTH 17TH STREET
OMAHA, NEBRASKA 68102-4975

March 26, 1997

U.S. Army Corps of Engineers
301 South Park, Drawer 10014
Helena, Montana 59626-0014
(406) 441-1375
FAX (406) 441-1380

Mr. Roy Aafedt
Cascade County Park Board
Courthouse Annex, Room 111
Great Falls, Montana 59401

Dear Mr. Aafedt:

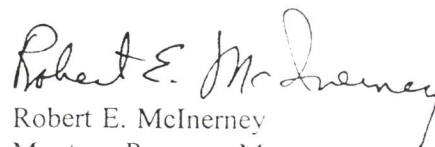
Reference is made to your proposed bank stabilization project (i.e. Mid Canon Project) on the left bank of the Missouri River in the SW1/4 Section 20, Township 16 North, Range 2 West, Cascade County, Montana.

Based on the information provided, this office has determined that your work within Montana is authorized by the Department of the Army Nationwide Permit found at 33 CFR Part 330 Appendix A, (B) (13). Enclosed is a fact sheet which describes this Nationwide Permit and lists the general and/or Section 404 only conditions which must be adhered to for this authorization to remain valid.

Although an individual Department of the Army Permit involving a public interest review will not be required for the project, this does not eliminate the requirement that you obtain all other applicable Federal, state, tribal and local permits. Please note that deviations from the original plans and specifications of your project could require additional authorization from this office. This verification will be valid for two years from the date of this letter.

If there are any questions concerning this authorization, please contact Larry Robson of my staff and reference Nationwide Permit No. 199790070.

Sincerely,


Robert E. McInerney
Montana Program Manager

Enclosure
cf: George Likness, MT FWP

Permit Number: 199790070

Name of Permittee: Cascade County Park Board

Date of Issuance: March 26, 1997

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

US Army Corps of Engineers
Helena Regulatory Office
301 S. Park, Drawer 10014
Helena, MT 59626-0014

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with the conditions of this permit, you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

FACT SHEET
NATIONWIDE PERMIT 13

Bank Stabilization: Bank stabilization activities necessary for erosion prevention provided the activity meets all of the following criteria:

- a. No material is placed in excess of the minimum needed for erosion protection;
- b. The bank stabilization activity is less than 500 feet in length;
- c. The activity will not exceed an average of one cubic yard per running foot placed along the bank below the plane of the ordinary high water mark or the high tide line;
- d. No material is placed in any special aquatic site, including wetlands;
- e. No material is of the type, or is placed in any location, or in any manner, so as to impair surface water flow into or out of any wetland area;
- f. No material is placed in a manner that will be eroded by normal or expected high flows (properly anchored trees and treetops may be used in low energy areas); and,
- g. The activity is part of a single and complete project.

Bank stabilization activities in excess of 500 feet in length or greater than an average of one cubic yard per running foot may be authorized if the permittee notifies the District Engineer in accordance with the "Notification" general condition and the District Engineer determines the activity complies with the other terms and conditions of the NWP and the adverse environmental effects are minimal both individually and cumulatively. This NWP may not be used for the channelization of a water of the United States. (Sections 10 and 404)

General Conditions: The following general conditions must be followed in order for any authorization by a NWP to be valid:

1. **Navigation:** No activity may cause more than a minimal adverse effect on navigation.
2. **Proper Maintenance:** Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.
3. **Erosion and Siltation Controls:** Appropriate erosion and siltation controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date.

4. **Aquatic Life Movements:** No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's primary purpose is to impound water.

5. **Equipment:** Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.

6. **Regional and Case-by-Case Conditions:** The activity must comply with any regional conditions which may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state or tribe in its section 401 water quality certification.

7. **Wild and Scenic Rivers:** No activity may occur in a component of the National Wild and Scenic River System; or in a river officially designated by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely effect the Wild and Scenic River designation, or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service.)

8. **Tribal Rights:** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

9. **Water Quality Certification:** In certain states, an individual Section 401 water quality certification must be obtained or waived (see 33 CFR 330.4(c)).

10. **Coastal Zone Management:** (Not Applicable)

11. **Endangered Species:** (a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which is likely to destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District Engineer if any listed species or critical habitat might be affected or is in the vicinity of the project, and shall not begin work on the activity until notified by the District Engineer that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized. (b) Authorization of an activity by a nationwide permit does not authorize the "take" of a threatened or endangered species as defined under the Federal Endangered Species Act. In the absence of separate authorization (e.g., an ESA section 10 Permit, a Biological Opinion with

''incidental take'' provisions, etc.) from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, both lethal and non-lethal ''takes'' of protected species are in violation of the Endangered Species Act. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. Fish and Wildlife Service and National Marine Fisheries Service or their world wide web pages at <http://www.fws.gov/-r9endspp/endspp.html> and http://kingfish.spp.mnfs.gov/tmcintyr/prot_res.html#ES and Recovery, respectively.

12. Historic Properties: No activity which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the DE has complied with the provisions of 33 CFR part 325, appendix C. The prospective permittee must notify the District Engineer if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)).

13. Notification: (Not Applicable)

14. Compliance Certification: Every permittee who has received a Nationwide permit verification from the Corps will submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the Corps with the authorization letter and will include: a. A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions; b. A statement that any required mitigation was completed in accordance with the permit conditions; c. The signature of the permittee certifying the completion of the work and mitigation.

15. Multiple Use of Nationwide Permits: In any case where any NWP number 12 through 40 is combined with any other NWP number 12 through 40, as part of a single and complete project, the permittee must notify the District Engineer in accordance with paragraphs a, b, and c on the ''Notification'' General Condition number 13. Any NWP number 1 through 11 may be combined with any other NWP without notification to the Corps, unless notification is otherwise required by the terms of the NWPs. As provided at 33 CFR 330.6(c) two or more different NWPs can be combined to authorize a single and complete project. However, the same NWP cannot be used more than once for a single and complete project.

Section 404 Only Conditions: In addition to the General Conditions, the following conditions apply only to activities that involve the discharge of dredged or fill material into waters of the U.S., and must be followed in order for authorization by the NWP's to be valid:

1. Water Supply Intakes: No discharge of dredged or fill material may occur in the proximity of a public water supply intake except where the discharge is for repair of the public water supply intake structures or adjacent bank stabilization.

2. Shellfish Production: No discharge of dredged or fill material may occur in areas of concentrated shellfish production, unless the discharge is directly related to a shellfish harvesting activity authorized by NWP 4.

3. Suitable Material: No discharge of dredged or fill material may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.) and material discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

4. Mitigation: Discharges of dredged or fill material into waters of the United States must be minimized or avoided to the maximum extent practicable at the project site (i.e., on-site), unless the District Engineer approves a compensation plan that the District Engineer determines is more beneficial to the environment than on-site minimization or avoidance measures.

5. Spawning Areas: Discharges in spawning areas during spawning seasons must be avoided to the maximum extent practicable.

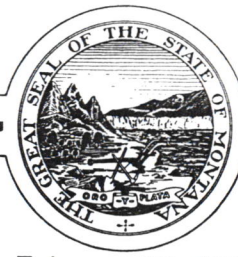
6. Obstruction of High Flows: To the maximum extent practicable, discharges must not permanently restrict or impede the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to impound waters).

7. Adverse Effects From Impoundments: If the discharge creates an impoundment of water, adverse effects on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow shall be minimized to the maximum extent practicable.

8. Waterfowl Breeding Areas: Discharges into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

9. Removal of Temporary Fills: Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

DEPARTMENT OF ENVIRONMENTAL QUALITY



MARC RACICOT, GOVERNOR

LEE METCALF BUILDING
1520 EAST SIXTH AVENUE

STATE OF MONTANA

(406) 444-6697
FAX (406) 444-1804

PO BOX 200901
HELENA, MONTANA 59620-0901

February 25, 1997

George Liknes, Fisheries Biologist
MT Dept of Fish, Wildlife & Parks
PO Box 6610
Great Falls, MT 59406

RE: Authorization No. MT-14-97 Short-Term Exemption from Surface Water Quality Turbidity Standards VALID March 1, 1997 through May 30, 1997.

Dear Mr. Liknes:

We have completed our review of your application for activity on the Missouri River, mid Canon Fishing Access Site in Cascade County. This activity is herewith exempt from the applicable Montana surface water quality turbidity standards if it is carried out in accordance with the following conditions:

- (1) Construction activities in or near the watercourse are to be limited to the minimum area necessary, and conducted so as to minimize increases in suspended solids and turbidity which may degrade water quality and damage aquatic life outside the immediate area of operation,
- (2) The use of machinery in the watercourse shall be avoided unless absolutely necessary. To prevent leaks of petroleum products into waterways, no defective equipment shall be operated in the watercourse or adjacent areas capable of contributing surface flow to the watercourse,
- (3) Precautions shall be taken to prevent spillage of any petroleum products, chemicals or other deleterious material in or near the watercourse, and no equipment shall be fueled or serviced in adjacent areas capable of contributing surface flow to the watercourse,
- (4) All disturbed areas on the streambank and adjacent areas created by the construction activity shall be protected with temporary erosion control during construction activities. These areas shall be reclaimed with appropriate erosion control measures and revegetated to provide long-term erosion control,
- (5) Any excess material generated from this project must be disposed of above the ordinary high water mark, not classified as a wetland, and in a position not to cause pollution to State waters,

February 25, 1997

Page 2

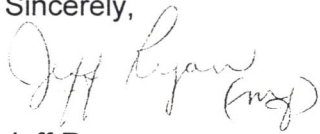
- (6) Clearing of vegetation will be limited to that which is absolutely necessary for construction of the project,
- (7) The use of asphalt or petroleum-based products as riprap is strictly prohibited. Its use as fill material is also prohibited if it is placed in a location where it is likely to cause pollution of State waters,
- (8) This authorization does not authorize a point source surface water discharge. A MPDES permit is required for said discharge, and
- (9) The applicant must conduct all activities in full and complete compliance with all terms and conditions of any permit for this activity issued pursuant to the Montana Natural Streambed and Land Preservation Act (310 permit) or the Montana Stream Protection Act (124 permit), and any valid Memorandum of Agreement and Authorization (MAA) negotiated for this activity.

This exemption is valid for the period March 1, 1997 through May 30, 1997 only. No exemption is valid for more than a one-year period of time.

Any violations of the conditions of this authorization may be subject to an enforcement action pursuant to the applicable provisions of the Montana Water Quality Act.

This authorization is granted pursuant to ARM 17.30.637(3a) and only applies to the activity described by your application. Any modification of the activity described in your application which may result in additional turbidity in the stream must receive prior approval from the Department. You may contact me at (406) 444-4626.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jeff Ryan" with a small mark below it.

Jeff Ryan
Water Quality Specialist
Planning, Prevention and Assistance Division

JR\mf